

Amendments to the Claims:

1. - 41. (Canceled)

42. (New) An oxide dispersion strengthened nickel-chromium-iron alloy comprising, by weight:

Carbon	0.01 – 0.7%
Silicon	0.1 – 3.0%
Manganese	0 – 2.5%
Nickel	15 – 90%
Chromium	5 – 40%
Molybdenum	0 – 3.0%
Niobium	0 – 2.0%
Tantalum	0 – 2.0%
Titanium	0 – 2.0%
Zirconium	0 – 2.0%
Cobalt	0 – 2.0%
Tungsten	0 – 4.0%
Hafnium	0.01 – 4.5%
Aluminium	0 – 15%
Nitrogen	0.001 – 0.5%
Oxygen	0.001 – 0.7%

balance iron and incidental impurities,

with the proviso, that at least one carbide forming element whose carbide is more stable than chromium carbide selected from niobium, titanium, tungsten, tantalum and zirconium is present and that at least part of the hafnium is present as finely divided oxide particles.

43. (New) An oxide dispersion strengthened nickel-chromium-iron alloy comprising, by weight:

Carbon	0.01 to 0.5%
Silicon	0.01 to 2.5%
Manganese	0 to 2.5%
Nickel	15 to 50%
Chromium	20 to 40%
Molybdenum	0 to 1.0%
Niobium	0 to 1.7%
Titanium	0 to 0.5%
Zirconium	0 to 0.5%
Cobalt	0 to 2.0%
Tungsten	0 to 1.0%
Hafnium	0.01 to 4.5%,

balance iron and incidental impurities,

with the proviso that at least one of niobium, titanium and zirconium is present and that at least part of the hafnium is present as finely divided oxide particles.

44. (New) An alloy according to claim 42 having the following compositions, by weight:

Carbon	0.3 to 0.7%
Silicon	0.1 to 2.5%
Manganese	2.5% max.
Nickel	30 to 40%
Chromium	20 to 30%
Molybdenum	3.0% max.
Niobium	2.0% max.

Hafnium	0.01 to 4.5%
Titanium	0.5% max.
Zirconium	0.5% max.
Cobalt	2.0% max.
Tungsten	1.0% max.
Nitrogen	0.001 – 0.5%
Oxygen	0.001 – 0.7%

balance iron and incidental impurities.

45. (New) An alloy according to claim 42 having a composition selected from the group consisting of, by weight:

Carbon	0.3 to 0.7%
Silicon	0.01 to 2.5%
Manganese	2.5% max.
Nickel	40 to 60%
Chromium	30 to 40%
Molybdenum	3.0% max.
Niobium	2.0% max.
Hafnium	0.01 to 4.5%
Titanium	1.0% max.
Zirconium	1.0% max.
Cobalt	2.0% max.
Tungsten	1.0% max.
Aluminium	0 – 15.0%
Nitrogen	0.001 – 0.5%
Oxygen	0.001 – 0.7%

balance iron and incidental impurities; and,

Carbon	0.3 to 0.7%
Silicon	0.01 to 2.5%
Manganese	2.5% max.
Nickel	19 to 22%
Chromium	24 to 27%
Molybdenum	3.0% max.
Niobium	2.0% max.
Hafnium	0.01 to 4.5%
Cobalt	2.0% max.
Tungsten	1.0% max.
Aluminium	0 – 15.0%
Nitrogen	0.001 – 0.5%
Oxygen	0.001 – 0.7%

balance iron and incidental impurities.

46. (New) An alloy according to claim 42, having a carbon content of from 0.3 to 0.5% by weight.

47. (New) An alloy according to claim 42, having a carbon content of from 0.03 to 0.2% by weight.

48. (New) An alloy according to claim 42, having a composition selected from the group consisting of, by weight:

Carbon	0.03 to 0.2%
Silicon	0.1 to 0.25%
Manganese	2.5% max.
Nickel	30 to 40%
Chromium	20 to 30%

Molybdenum 3.0% max.
Niobium 1.7% max.
Hafnium 0.01 to 4.5%
Titanium 0.5% max.
Zirconium 0.5% max.
Cobalt 2.05% max.
Tungsten 1.0% max.
Aluminium 0 – 15.0%
Nitrogen 0.001 – 0.5%
Oxygen 0.001 – 0.7%

balance iron and incidental impurities;

Carbon 0.03 to 0.2%
Silicon 0.1 to 2.5%
Manganese 2.5% max.
Nickel 40 to 50%
Chromium 30 to 40%
Molybdenum 3.0% max.
Niobium 2.0% max.
Hafnium 0.01 to 4.5%
Titanium 0.5% max.
Zirconium 0.5% max.
Cobalt 2.0% max.
Tungsten 1.0% max.
Aluminium 0 – 15.0%
Nitrogen 0.001 – 0.5%
Oxygen 0.001 – 0.7%

balance iron and incidental impurities; and

Carbon	0.03 to 0.2%
Silicon	0.1 to 2.5%
Manganese	2.5% max
Nickel	30 to 45%
Chromium	19 to 22%
Molybdenum	3.0% max.
Niobium	2.0% max.
Hafnium	0.01 to 4.5%
Titanium	0.5% max.
Zirconium	0.5% max.
Cobalt	2.0% max.
Tungsten	1.0% max.
Aluminium	0 – 15.0%
Nitrogen	0.001 – 0.5%
Oxygen	0.001 – 0.7%

balance iron and incidental impurities.

49. (New) An alloy according to claim 42, in which the amount of carbon in the alloy, by weight, is from 0.3 to 0.6% and the amount of hafnium in the alloy, by weight, is from 0.01 to 3.0%.

50. (New) An alloy according to claim 49, in which the amount of hafnium in the alloy, by weight, is from 0.1% to 1.0%.

51. (New) An alloy according to claim 50, in which the amount of hafnium in the alloy, by weight, is from 0.2 to 0.5%.

52. (New) An alloy according to claim 42, in which the amount of aluminium in the alloy, by weight, is from 0.1% to 10% and the amount of hafnium by weight is from 0.01% to 4.5%.

53. (New) An alloy according to claim 52, in which the amount of aluminium in the alloy, by weight, is from 0.1% to 6% and the amount of hafnium by weight is from 0.1% to 1.0%.

54. (New) An alloy according to claim 52, in which the amount of aluminium in the alloy, by weight, is from 0.1% to 4.5% and the amount of hafnium by weight is from 0.2% to 0.5%.

55. (New) An alloy having a composition selected from the group consisting of, by weight:

Carbon 0.45%

Silicon 1.3%

Manganese 0.9%

Nickel 33.8%

Chromium 25.7%

Molybdenum 0.03%

Niobium 0.85%

Hafnium 0.25%

Titanium 0.1%

Zirconium 0.01%

Cobalt 0.04%

Tungsten 0.01%

Nitrogen 0.1%

Iron balance;

Carbon 0.07%

Silicon 1.0%

Manganese 0.98%

Nickel 32.5%

Chromium 25.8%

Molybdenum 0.20%

Niobium 0.04%

Hafnium 1.1%

Titanium 0.12%

Zirconium 0.01%

Cobalt 0.04%

Tungsten 0.08%

Nitrogen 0.1%

Iron balance;

Carbon 0.34%

Silicon 1.68%

Manganese 1.10%

Nickel 32.0%

Chromium 21.3%

Molybdenum 0.01%

Niobium 0.80%

Hafnium 0.25%

Titanium 0.12%

Zirconium 0.01%

Aluminium 3.28%

Cobalt 0.04%

Tungsten 0.01%

Iron balance; and

Carbon 0.42%

Silicon 1.79%

Manganese 1.17%

Nickel 33.2%

Chromium 23.3%

Molybdenum 0.02%

Niobium	0.77%
Hafnium	0.24%
Titanium	0.10%
Zirconium	0.01%
Aluminium	1.64%
Cobalt	0.04%
Tungsten	0.08%
Iron	balance; wherein

at least part of the hafnium is present as finely divided oxide particles.

56. (New) An alloy according to claim 42, in which the hafnium is present in the alloy in the form of finely divided oxidised particles having an average particle size of from 50 microns to 0.25 microns, or less.

57. (New) An alloy according to claim 42, in which the hafnium is present in the alloy in the form of finely divided oxidised particles having an average particle size of from 5 microns to 0.25 microns, or less.

58. (New) An oxide dispersion strengthened nickel-chromium-iron alloy which comprises up to about 5% by weight of hafnium, with at least part of the hafnium being present as finely divided oxidised particles.

59. (New) A method of manufacturing an oxide dispersion strengthened nickel-chromium-iron alloy which comprises adding finely divided hafnium particles to a melt of the alloy before pouring, under conditions such that at least part of the hafnium is converted to oxide in the melt.

60. (New) A method according to claim 59, wherein the hafnium particles have a particle size of less than 50 microns.

61. (New) A method according to claim 59, wherein the hafnium particles are added to the melt shortly before pouring the molten alloy into a mould.

62. (New) A method according to claim 61 in which the hafnium particles are added to the molten alloy in a ladle.

63. (New) A method according to claim 59, in which the hafnium is electrolytic hafnium.

64. (New) A method according to claim 59, wherein the level of oxygen in the melt is varied by additions of one or more of niobium, titanium and zirconium.

65. (New) A method according to claim 64 in which titanium is added in the form of TiFe after the hafnium addition.

66. (New) A method according to claim 59, in which the melt temperature is in the range of from 1500C to 1700C.

67. (New) A method of manufacturing a corrosion resistant nickel-chromium-iron alloy which comprises adding sequentially finely divided hafnium particles and aluminium to a melt of the alloy before pouring.

68. (New) A method according to claim 67 wherein the aluminium is added to the melt immediately before pouring the molten alloy into a mould.

69. (New) A method according to claim 59, in which the alloy is formed into a tube by rotational moulding.

70. (New) A method of manufacturing a creep resistant nickel-chromium-iron alloy, which comprises adding finely divided hafnium particles to the melt before pouring.

71. (New) A tube formed from an alloy according to claim 42 by rotational moulding.

72. (New) A corrosion resistant alloy tube, which comprises an oxide dispersion strengthened nickel-chromium-iron alloy comprising up to 15% of aluminium and up to about 5% of hafnium.

73. (New) A creep resistant alloy tube, which comprises an oxide dispersion strengthened nickel-chromium-iron alloy comprising up to about 5% of hafnium.